CLAIMS

What is claimed is:

1. An apparatus, comprising:
a trace cache array to store a first trace and a second trace; and
a trace-end predictor to store a first tail data from said first trace to predict an address for said second trace.

2. The apparatus of claim 1, wherein said first tail data includes a set and a way for a head of said second trace.

3. The apparatus of claim 1, wherein said first tail data includes a quickstew.

4. The apparatus of claim 1, wherein said trace end predictor is to read said first tail data when a first tail of said first trace is accessed.

5. The apparatus of claim 1, wherein said trace end predictor is to read said first tail data when a first body before a first tail of said first trace is accessed.

6. The apparatus of claim 1, further comprising a selector to select said address from said trace-end predictor and a predictor.

7. The apparatus of claim 6, wherein said selector to give priority to said predictor.

8. The apparatus of claim 1, wherein said trace-end predictor to store a third tail data from a third trace to predict an address for a fourth trace.

9. The apparatus of claim 8, wherein said trace-end predictor is to store tag data of said first trace and said third trace to determine which trace is currently in execution.

10. A method, comprising:

storing tail data of a first trace during a first execution of said first trace;

retrieving said tail data during a second execution of said first trace; and

fetching a head of a second trace from a trace cache using said tail data.

11. The method of claim 10, wherein said storing includes storing set and way information of said first trace.

12. The method of claim 10, wherein said storing includes storing set and way information of said head.

13. The method of claim 10, wherein said storing includes storing a quickstew.

14. The method of claim 13, further comprising calculating a headstew for said second trace using said quickstew.

15. The method of claim 10, wherein said retrieving is performed subsequent to initiating access to a tail of said first trace during said second execution.

16. The method of claim 10, wherein said retrieving is performed subsequent to initiating access to a body of said first trace prior to a tail of said first trace during second execution.

17. The method of claim 10, further comprising inhibiting said fetching when an off-trace prediction is made.

18. An apparatus, comprising:

means for storing tail data of a first trace during a first execution of said first trace;

means for retrieving said tail data during a second execution of said first trace; and

means for fetching a head of a second trace from a trace cache using said tail data.

19. The apparatus of claim 18, wherein said means for storing includes means for storing set and way information of said first trace.

20. The apparatus of claim 18, wherein said means for storing includes means for storing set and way information of said head.

21. The apparatus of claim 18, wherein said means for storing includes means for storing a quickstew.

22. The apparatus of claim 21, further comprising means for calculating a headstew for said second trace using said quickstew.

23. A system, comprising:

a processor including a trace cache array to store a first trace and a second trace, and a trace-end predictor to store a first tail data from said first trace to predict an address for said second trace;

a memory coupled to said processor to store instructions to be decoded to supply said trace cache array; and

an audio input/output device coupled to said memory and to said processor.

24. The system of claim 23, wherein said first tail data includes a set and a way for a head of said second trace.

25. The system of claim 23, wherein said first tail data includes a quickstew.

26. The system of claim 23, wherein said trace end predictor is to read said first tail data when a first tail of said first trace is accessed.

27. The system of claim 23, wherein said trace end predictor is to read said first tail data when a first body before a first tail of said first trace is accessed.